

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1852	coefficient with expansion with (PCB or PWB or board)	USPAT	OR	OFF	2006/06/15 17:44
L2	188	coefficient with expansion with (PCB or PWB or board) with ppm	USPAT	OR	ON	2006/06/15 17:53
L3	183	coefficient with expansion with (PCB or board) with ppm	USPAT	OR	ON	2006/06/15 17:53
L4	108	coefficient with expansion with (PCB or circuit near board) with ppm	USPAT	OR	ON	2006/06/15 18:40
L5	3541	257/686	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 19:02
L6	3297	257/777	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 19:22
L7	2	257/E27.137	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 19:37
L8	3	257/E27.144	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 19:37
L9	2	257/E27.161	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 19:37
S1	5	"6081029".pn. or "5942794".pn. or "5623162".pn. or "5578871".pn. or "5371044".pn.	USPAT	OR	OFF	2006/06/15 17:44
S2	1	"6639306"	USPAT	OR	OFF	2004/06/22 14:25
S3	0	"20010033011"	USPAT	OR	OFF	2004/06/22 14:23
S4	1	"20010033011"	US-PGPUB; USPAT	OR	OFF	2004/06/22 14:23

## EAST Search History

S5	1	"4952999".PN.	USPAT	OR	OFF	2004/06/22 14:24
S6	1	"5371044".PN.	USPAT	OR	OFF	2004/06/22 14:24
S7	1	"5578871".PN.	USPAT	OR	OFF	2004/06/22 14:24
S8	1	"5623162".PN.	USPAT	OR	OFF	2004/06/22 14:24
S9	1	"5942794".PN.	USPAT	OR	OFF	2004/06/22 14:25
S10	1	"6081029".PN.	USPAT	OR	OFF	2004/06/22 14:25
S11	464	(semiconductor or die or chip or IC) and (die near pad or paddle) with (protru\$4 or tab)	USPAT	OR	ON	2004/06/22 15:07
S12	10	(semiconductor or die or chip or IC) and (die near pad or paddle) with (indenta\$4)	USPAT	OR	ON	2004/06/22 14:46
S13	5894	(semiconductor or die or chip or IC) and (lead) with (protru\$4 or tab or indentat\$3)	USPAT	OR	ON	2004/06/22 14:47
S14	909	((semiconductor or die or chip or IC) and (lead) with (protru\$4 or tab or indentat\$3)) and "438"/\$. ccls.	USPAT	OR	ON	2004/06/22 14:48
S15	1	"5389739".PN.	USPAT	OR	OFF	2004/06/22 14:49
S16	1	"5578871".PN.	USPAT	OR	OFF	2004/06/22 14:50
S17	1	"6303985".PN.	USPAT	OR	OFF	2004/06/22 14:50
S18	1	"4712129".PN.	USPAT	OR	OFF	2004/06/22 14:51
S19	1	"4803540".PN.	USPAT	OR	OFF	2004/06/22 14:51
S20	1	"4918511".PN.	USPAT	OR	OFF	2004/06/22 14:51
S21	1	"4952999".PN.	USPAT	OR	OFF	2004/06/22 14:55
S22	1	"5126820".PN.	USPAT	OR	OFF	2004/06/22 14:55
S23	1	"5214307".PN.	USPAT	OR	OFF	2004/06/22 14:55
S24	1	"5389739".PN.	USPAT	OR	OFF	2004/06/22 14:55
S25	1	"5578871".PN.	USPAT	OR	OFF	2004/06/22 14:55
S26	1	"5594234".PN.	USPAT	OR	OFF	2004/06/22 14:55
S27	1	"5610437".PN.	USPAT	OR	OFF	2004/06/22 14:56
S28	1	"5760465".PN.	USPAT	OR	OFF	2004/06/22 14:56
S29	1	"5796162".PN.	USPAT	OR	OFF	2004/06/22 14:56
S30	1	"5859471".PN.	USPAT	OR	OFF	2004/06/22 14:56
S31	1	"5864174".PN.	USPAT	OR	OFF	2004/06/22 14:56
S32	1	"5920114".PN.	USPAT	OR	OFF	2004/06/22 14:57
S33	1	"6075283".PN.	USPAT	OR	OFF	2004/06/22 14:57
S34	1	"6153924".PN.	USPAT	OR	OFF	2004/06/22 14:57

## EAST Search History

S35	112	(semiconductor or die or chip or IC) and (die near pad or paddle) with (protru\$4 or tab)	JPO	OR	ON	2004/06/22 15:16
S36	3151	257/666	USPAT	OR	ON	2004/06/22 15:18
S37	1	"5648682".PN.	USPAT	OR	OFF	2004/06/22 15:19
S38	1	"5677567".PN.	USPAT	OR	OFF	2004/06/22 15:19
S39	1	"6060769".PN.	USPAT	OR	OFF	2004/06/22 15:19
S40	1	"6208020".PN.	USPAT	OR	OFF	2004/06/22 15:19
S41	1	"5089878".PN.	USPAT	OR	OFF	2004/06/22 15:19
S42	1	"5977630".PN.	USPAT	OR	OFF	2004/06/22 15:19
S43	1	"6028350".PN.	USPAT	OR	OFF	2004/06/22 15:19
S44	1	"6047467".PN.	USPAT	OR	OFF	2004/06/22 15:19
S45	1	"6081029".PN.	USPAT	OR	OFF	2004/06/22 15:19
S46	1	"6130115".PN.	USPAT	OR	OFF	2004/06/22 15:19
S47	1	"6191494".PN.	USPAT	OR	OFF	2004/06/22 15:20
S48	1	"6201294".PN.	USPAT	OR	OFF	2004/06/22 15:20
S49	1	"6204554".PN.	USPAT	OR	OFF	2004/06/22 15:21
S50	1	"6208020".PN.	USPAT	OR	OFF	2004/06/22 15:21
S51	1	"6208023".PN.	USPAT	OR	OFF	2004/06/22 15:21
S52	1	"6281568".PN.	USPAT	OR	OFF	2004/06/22 15:21
S53	1	"6319753".PN.	USPAT	OR	OFF	2004/06/22 15:23
S54	1	"5389739".PN.	USPAT	OR	OFF	2004/06/22 15:24
S55	1	"5578871".PN.	USPAT	OR	OFF	2004/06/22 15:24
S56	1	"6303985".PN.	USPAT	OR	OFF	2004/06/22 15:24
S57	1	"4712129".PN.	USPAT	OR	OFF	2004/06/22 15:26
S58	1	"4803540".PN.	USPAT	OR	OFF	2004/06/22 15:26
S59	30	"5214307"	USPAT	OR	OFF	2004/06/22 15:31
S60	1	"4258381".PN.	USPAT	OR	OFF	2004/06/22 15:29
S61	1	"4857989".PN.	USPAT	OR	OFF	2004/06/22 15:29
S62	1	"5081520".PN.	USPAT	OR	OFF	2004/06/22 15:31
S63	11	"5864174"	USPAT	OR	OFF	2004/06/22 15:36
S64	2233	257/676	USPAT	OR	OFF	2004/06/22 15:36
S65	1940	257/676 and (wir\$3)	USPAT	OR	ON	2004/06/22 15:38
S66	1	"4994895".PN.	USPAT	OR	OFF	2004/06/22 15:42
S67	1	"5001542".PN.	USPAT	OR	OFF	2004/06/22 15:43
S68	1	"5001547".PN.	USPAT	OR	OFF	2004/06/22 15:43
S69	1	"5019673".PN.	USPAT	OR	OFF	2004/06/22 15:43

## EAST Search History

S70	1	"5045151".PN.	USPAT	OR	OFF	2004/06/22 15:43
S71	1	"4612564".PN.	USPAT	OR	OFF	2004/06/22 17:18
S72	1	"4633583".PN.	USPAT	OR	OFF	2004/06/22 17:19
S73	1	"5053855".PN.	USPAT	OR	OFF	2004/06/22 17:19
S74	1	"5147821".PN.	USPAT	OR	OFF	2004/06/22 17:19
S75	1	"5302849".PN.	USPAT	OR	OFF	2004/06/22 17:19
S76	1	"5367766".PN.	USPAT	OR	OFF	2004/06/22 17:19
S77	1	"5512781".PN.	USPAT	OR	OFF	2004/06/22 17:20
S78	1	"5527743".PN.	USPAT	OR	OFF	2004/06/22 17:20
S79	943	438/112	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/06/22 17:46
S80	363	438/117	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/06/22 18:04
S81	1618	438/123	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/06/22 18:46
S82	1187	438/124	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/06/22 19:08
S83	1628	438/127	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/06/22 19:27
S84	3151	257/666	USPAT	OR	ON	2004/06/22 19:28
S85	3167	257/676	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/06/22 19:54
S86	4566	257/787	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/06/23 11:29

## EAST Search History

S87	3904	257/778	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/06/23 11:32
S88	3388	257/778	USPAT	OR	OFF	2004/06/23 11:32
S89	2754	257/778 and solder	USPAT	OR	OFF	2004/06/23 11:32
S90	610	257/778 and solder with (big\$3 or larg\$2)	USPAT	OR	OFF	2004/06/23 11:55
S91	1327	257/777 and solder	USPAT	OR	OFF	2004/06/23 11:56
S92	1585	257/777 and (solder or ball or bump)	USPAT	OR	ON	2004/06/23 19:16
S93	45	257/777 and (solder or ball or bump)	JPO	OR	ON	2004/06/23 12:56
S94	1622	257/686 and (solder or ball or bump)	USPAT; JPO	OR	ON	2004/06/23 12:58
S95	9	"6297960"	USPAT	OR	OFF	2004/06/23 15:56
S96	1	"4996587".PN.	USPAT	OR	OFF	2004/06/23 18:59
S97	1	"5107328".PN.	USPAT	OR	OFF	2004/06/23 18:59
S98	1	"5247423".PN.	USPAT	OR	OFF	2004/06/23 18:59
S99	1	"5444296".PN.	USPAT	OR	OFF	2004/06/23 18:59
S10 0	1	"5646828".PN.	USPAT	OR	OFF	2004/06/23 19:00
S10 1	1	"5652463".PN.	USPAT	OR	OFF	2004/06/23 19:00
S10 2	1	"5656856".PN.	USPAT	OR	OFF	2004/06/23 19:00
S10 3	1	"5674785".PN.	USPAT	OR	OFF	2004/06/23 19:00
S10 4	1	"5677566".PN.	USPAT	OR	OFF	2004/06/23 19:00
S10 5	1	"5677566".PN.	USPAT	OR	OFF	2004/06/23 19:00
S10 6	1	"5808878".PN.	USPAT	OR	OFF	2004/06/23 19:00
S10 7	1	"5811879".PN.	USPAT	OR	OFF	2004/06/23 19:01
S10 8	1	"5838546".PN.	USPAT	OR	OFF	2004/06/23 19:01
S10 9	1	"5898224".PN.	USPAT	OR	OFF	2004/06/23 19:01
S11 0	1	"5952611".PN.	USPAT	OR	OFF	2004/06/23 19:01

## EAST Search History

S11 1	1	"5969426".PN.	USPAT	OR	OFF	2004/06/23 19:01
S11 2	1	"5973403".PN.	USPAT	OR	OFF	2004/06/23 19:01
S11 3	1	"5982038".PN.	USPAT	OR	OFF	2004/06/23 19:01
S11 4	1	"5994166".PN.	USPAT	OR	OFF	2004/06/23 19:01
S11 5	1	"6005778".PN.	USPAT	OR	OFF	2004/06/23 19:02
S11 6	1	"6013948".PN.	USPAT	OR	OFF	2004/06/23 19:02
S11 7	1	"6020629".PN.	USPAT	OR	OFF	2004/06/23 19:02
S11 8	1	"6051878".PN.	USPAT	OR	OFF	2004/06/23 19:03
S11 9	1	"6081023".PN.	USPAT	OR	OFF	2004/06/23 19:03
S12 0	1	"6087717".PN.	USPAT	OR	OFF	2004/06/23 19:03
S12 1	1	"6093969".PN.	USPAT	OR	OFF	2004/06/23 19:03
S12 2	1	"6181002".PN.	USPAT	OR	OFF	2004/06/23 19:03
S12 3	1	"6262488".PN.	USPAT	OR	OFF	2004/06/23 19:03
S12 4	1	"6265771".PN.	USPAT	OR	OFF	2004/06/23 19:03
S12 5	1	"6316727".PN.	USPAT	OR	OFF	2004/06/23 19:04
S12 6	1	"6388336".PN.	USPAT	OR	OFF	2004/06/23 19:04
S12 7	0	"2001/0015485".PN.	USPAT	OR	OFF	2004/06/23 19:04
S12 8	54	"5994166"	USPAT	OR	OFF	2004/06/23 19:04
S12 9	383	257/777 and (solder or ball or bump) and (capacitor or resistor)	USPAT	OR	ON	2004/06/23 21:16
S13 0	26	(257/777 or 257/686) and (solder or ball or bump) and (silicon or "Si") near (die or chip or semiconductor or IC) with memory	USPAT	OR	ON	2004/06/23 21:19

## EAST Search History

S13 1	207	(257/777 or 257/686) and (solder or ball or bump) and (silicon or "Si") near (die or chip or semiconductor or IC) and memory	USPAT	OR	ON	2004/06/23 21:19
S13 2	2457	"20010008482".pn. or "20010036063".pn. or "20020075662" "20020176233" "3,746,934" "4,773,868" "5,130,894" "5,172,303" "5,222,014" "5,334,875" "5", "394,303"	US-PGPUB; USPAT	OR	OFF	2004/11/05 17:58
S13 3	11	"20010008482".pn. or "20010036063".pn. or "20020075662".pn. or "20020176233".pn. or "3746934".pn. or "4773868".pn. or "5130894".pn. or "5172303".pn. or "5222014".pn. or "5334875".pn. or "5394303".pn.	US-PGPUB; USPAT	OR	OFF	2004/11/05 18:06
S13 4	42	"5,434,745".pn. or "5,455,385".pn. or "5,502,667".pn. or "5,544,017".pn. or "5,586,010".pn. or "5,666,272".pn. or "5,699,234".pn. or "5,701,233".pn. or "5,702,984".pn. or "5,712,768".pn. or "5,715,144"	US-PGPUB; USPAT	OR	OFF	2004/11/05 18:07
S13 5	11	"5,434,745".pn. or "5,455,385".pn. or "5,502,667".pn. or "5,544,017".pn. or "5,586,010".pn. or "5,666,272".pn. or "5,699,234".pn. or "5,701,233".pn. or "5,702,984".pn. or "5,712,768".pn. or "5,715,144".pn.	US-PGPUB; USPAT	OR	OFF	2004/11/05 18:12
S13 6	10	"5,721,671".pn. or "5,748,452".pn. or "5,781,415".pn. or "5,783,870".pn. or "5,857,858".pn. or "5,898,575".pn. or "5,907,903".pn. or "5,963,430".pn. or "5,977,640".pn. or "6,014,316".pn. or "6,049,467".pn.	US-PGPUB; USPAT	OR	OFF	2004/11/05 18:13
S13 7	11	"5,721,671".pn. or "5,748,452".pn. or "5,781,415".pn. or "5,783,870".pn. or "5,857,858".pn. or "5,898,575".pn. or "5,907,903".pn. or "5,963,430".pn. or "5,977,640".pn. or "6,014,316".pn. or "6,049,467".pn.	US-PGPUB; USPAT	OR	OFF	2004/11/05 18:18

## EAST Search History

S13 8	11	"6,093,029".pn. or "6,125,039".pn. or "6,133,626".pn. or "6,163,462".pn. or "6,180,881".pn. or "6,195,268".pn. or "6,222,265".pn. or "6,265,772".pn. or "6,297,960".pn. or "6,331,939".pn. or "6,381,141".pn.	US-PGPUB; USPAT	OR	OFF	2004/11/05 18:24
S13 9	4090	"6,477,058".pn. or "6,504,241".pn. or 257/778 "525,943".pn. or "6,525,945".pn. or "6,529,385".pn. or "6,542,393".pn. or "6,545,868".pn. or "6,549,421".pn. or "6,583,503".pn.	US-PGPUB; USPAT	OR	OFF	2004/11/05 18:25
S14 0	9	"6477058".pn. or "6504241".pn. or "6525943".pn. or "6525945".pn. or "6529385".pn. or "6542393".pn. or "6545868".pn. or "6549421".pn. or "6583503".pn.	US-PGPUB; USPAT	OR	OFF	2004/11/05 18:25
S14 1	2822	257/686	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 17:07
S14 2	2363	257/686	USPAT	OR	OFF	2005/04/06 13:17
S14 3	1646	257/686 and (ball or bump)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 17:39
S14 4	2	"08335407"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 14:48
S14 5	1562	anistropic	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 14:49



## EAST Search History

S14 6	252	anisotropic same (bead or particle or ball) with coat\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 14:51
S14 7	43	anisotropic same (bead or particle or ball) with coat\$3 with (dielectric or insulating)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 14:54
S14 8	4	anisotropic same (conductive or metal) with (bead or particle or ball) with (dielectric or insulating) with shell	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 14:54
S14 9	4	anisotropic same (conductive or metal) with (bead or particle or core or ball) with (dielectric or insulating) with shell	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 14:55
S15 0	14	anisotropic and (conductive or metal) with (bead or particle or core or ball) with (dielectric or insulating) with shell	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 14:56
S15 1	17	anisotropic and (conduct\$3 or metal\$4) with (bead or particle or core or ball) with (dielectric or insulating) with shell	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 15:57
S15 2	7	"6515356"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 15:57
S15 3	1176	S141 not S143	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 17:39

## EAST Search History

S15 4	2674	257/777	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 18:39
S15 5	1693	257/777 and (ball or bump)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 18:08
S15 6	0	S155 not S154	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 18:08
S15 7	981	S154 not S155	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 18:08
S15 8	4307	257/778	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 19:18
S15 9	2267	257/786	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 19:45
S16 0	2048	257/780	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 20:03
S16 1	2	"5995379".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 19:59

## EAST Search History

S16 2	1067	257/781	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 20:27
S16 3	2332	257/712	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 21:15
S16 4	1803	257/713	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/06 21:15
S16 5	2473	257/678	USPAT	OR	OFF	2005/04/07 19:21
S16 6	93090	(semiconductor or die or chip or IC) with (both or double or dual)	USPAT	OR	ON	2005/04/07 19:22
S16 7	1677	(semiconductor or die or chip or IC) with ( dual) and (ball or bump)	USPAT	OR	ON	2005/04/07 19:22
S16 8	103	"6020629"	USPAT	OR	OFF	2005/04/07 22:49
S16 9	1	"20050051903"	US-PGPUB; USPAT	OR	OFF	2005/04/07 22:50
S17 0	2214	(dual near inline near memory near module or DIMM)	US-PGPUB; USPAT	OR	OFF	2005/04/07 22:51
S17 1	18	(dual near inline near memory near module or DIMM) and dual near (semiconductor or die or chip or IC)	US-PGPUB; USPAT	OR	OFF	2005/04/07 22:54
S17 2	1770	(dual near inline near memory near module or DIMM) and (semiconductor or die or chip or IC)	US-PGPUB; USPAT	OR	OFF	2005/04/07 22:54
S17 3	888	(dual near inline near memory near module or DIMM) and (semiconductor or die or chip or IC)	USPAT	OR	OFF	2005/04/07 23:20
S17 4	269	257/747	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/07 23:20

## EAST Search History

S17 5	2554	257/692	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/07 23:29
S17 6	1679	257/693	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/07 23:45
S17 7	2250	257/698	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/07 23:59
S17 8	3527	257/723	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/08 00:18
S17 9	3326	257/737	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/08 00:36
S18 0	2	"20030001267"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/08 00:21
S18 1	3010	257/738	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/08 00:56
S18 2	4304	257/778	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/08 01:12

## EAST Search History

S18 3	0	257/E25.006	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/08 01:12
S18 4	2	257/E25.013	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/08 01:12
S18 5	2	257/E21.511	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/08 01:13
S18 6	4	257/E23.069	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/08 01:13
S18 7	1212	361/783	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/08 01:29
S18 8	1276	361/803	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/04/08 01:29
S18 9	865	257/777 and (ball or bump) and (semiconductor or die or chip or IC) with (both or dual)	USPAT	OR	OFF	2005/04/14 05:39
S19 0	2474	257/777	USPAT	OR	OFF	2006/01/06 14:58
S19 1	233	257/777 and mother	USPAT	OR	OFF	2005/07/15 15:41
S19 2	1	"20050051903"	US-PGPUB; USPAT	OR	OFF	2005/07/15 15:41
S19 3	1	"5089880".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:52
S19 4	1	"5117282".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:53

## EAST Search History

S19 5	1	"5128831".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:53
S19 6	1	"5222014".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:53
S19 7	1	"5362679".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:53
S19 8	1	"5400904".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:53
S19 9	1	"5444296".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:54
S20 0	1	"5509200".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:54
S20 1	1	"5514907".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:54
S20 2	1	"5591941".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:54
S20 3	1	"5612570".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:54
S20 4	1	"5713744".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:55
S20 5	1	"5751063".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:55
S20 6	1	"5758413".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:55
S20 7	1	"5783461".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:55
S20 8	1	"5861666".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:55
S20 9	1	"5977640".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:56
S21 0	1	"6014316".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:59
S21 1	1	"6121676".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:59
S21 2	1	"RE36916".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:59
S21 3	1	"6130823".PN.	USPAT; USOCR	OR	OFF	2005/07/15 15:59
S21 4	1	"6225688".PN.	USPAT; USOCR	OR	OFF	2005/07/15 16:00
S21 5	1	"6323546".PN.	USPAT; USOCR	OR	OFF	2005/07/15 16:00
S21 6	1	"6414391".PN.	USPAT; USOCR	OR	OFF	2005/07/15 16:00

## EAST Search History

S21 7	1	"6417027".PN.	USPAT; USOCR	OR	OFF	2005/07/15 16:01
S21 8	1	"6417027".PN.	USPAT; USOCR	OR	OFF	2005/07/15 16:01
S21 9	1	"6473308".PN.	USPAT; USOCR	OR	OFF	2005/07/15 16:01
S22 0	1	"20020030261".PN.	US-PGPUB	OR	OFF	2005/07/15 16:01
S22 1	1	"20020079568".PN.	US-PGPUB	OR	OFF	2005/07/15 16:01
S22 2	80	"5977640"	USPAT	OR	OFF	2005/07/15 16:58
S22 3	1144	(257/777 or 257/686 or 438/108 or 438/109 or 361/760) and (semiconductor or die or dice or chip or IC) with (thru or through) near (via or hole) and (mother or upper or uppermost or top)	USPAT	OR	ON	2005/07/15 17:01
S22 4	1	"6424034".pn. and (silicon or silicone or "Si") with chip	USPAT	OR	ON	2005/07/18 14:52
S22 5	0	"6222276".pn. and solder near (ball or bump)	USPAT	OR	ON	2005/07/18 14:53
S22 6	0	"6222276".pn. and solder with (ball or bump)	USPAT	OR	ON	2005/07/18 14:53
S22 7	1	"6222276".pn. and solder with ("44")	USPAT	OR	ON	2005/07/18 14:54
S22 8	1	"6222276".pn. and solder with ("44" or interconnect\$3)	USPAT	OR	ON	2005/07/18 14:56
S22 9	1	"6222276".pn. and solder with (connect\$3)	USPAT	OR	ON	2005/07/18 14:56
S23 0	0	"6809421".pn. and adhesive with omit\$4	USPAT	OR	ON	2005/07/19 18:17
S23 1	0	"6809421".pn. and adhesive with (omit\$4 or skip\$3 or exclud\$3)	USPAT	OR	ON	2005/07/19 18:17
S23 2	0	"6809421".pn. and adhesive with (omit\$4 or skip\$3 or exclud\$3 or "not" near us\$3)	USPAT	OR	ON	2005/07/19 18:23
S23 3	1	"6809421".pn. and adhesive	USPAT	OR	ON	2005/07/19 19:58
S23 4	1	"6313522".pn.	USPAT	OR	ON	2005/07/19 19:58
S23 5	1	"4679167".PN.	USPAT; USOCR	OR	OFF	2005/07/19 20:09
S23 6	1	"4996583".PN.	USPAT; USOCR	OR	OFF	2005/07/19 20:09

## EAST Search History

S23 7	1	"5179536".PN.	USPAT; USOCR	OR	OFF	2005/07/19 20:09
S23 8	1	"5708298".PN.	USPAT; USOCR	OR	OFF	2005/07/19 20:10
S23 9	1	"5761609".PN.	USPAT; USOCR	OR	OFF	2005/07/19 20:10
S24 0	1	"5793998".PN.	USPAT; USOCR	OR	OFF	2005/07/19 20:10
S24 1	1	"5796653".PN.	USPAT; USOCR	OR	OFF	2005/07/19 20:10
S24 2	1	"5809263".PN.	USPAT; USOCR	OR	OFF	2005/07/19 20:10
S24 3	1	"6262488".PN.	USPAT; USOCR	OR	OFF	2005/07/19 20:11
S24 4	1	"RE37539".PN.	USPAT; USOCR	OR	OFF	2005/07/19 20:11
S24 5	1	"6351406".PN.	USPAT; USOCR	OR	OFF	2005/07/19 20:11
S24 6	1	"6515373".PN.	USPAT; USOCR	OR	OFF	2005/07/19 20:11
S24 7	2837	257/777	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/19 21:01
S24 8	2988	257/686	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/07 12:25
S25 0	1138	(257/777 or 257/686 or 438/108 or 438/109 or 361/760) and (protrud\$3 or elevat\$3 or project\$3) with (contact\$3 or connect\$3 or redistribut\$3) and (flip or ball or bump)	USPAT	OR	ON	2006/01/06 12:26
S25 1	78	("5172303").URPN.	USPAT	OR	OFF	2006/01/06 12:30
S25 2	10	("5043794"   "5172303"   "5214308"   "5241133"   "5247423"   "5375041"   "5640048"   "5747874"   "5767528"   "5838060").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 12:34
S25 3	3	("5986334").URPN.	USPAT	OR	OFF	2006/01/06 12:42



## EAST Search History

S25 4	33	("3723977"   "3746934"   "4851695"   "4956694"   "5128831"   "5198888"   "5201451"   "5231304"   "5239447"   "5269453"   "5282565"   "5284796"   "5311401"   "5313096"   "5324569"   "5328087"   "5373189"   "5384689"   "5514907"   "5607538"   "5612570"   "5700715"   "5712767"   "5731633"   "5747874"   "5759046"   "5818106"   "5869353"   "5869896"   "5930603"   "5950304"   "6028365"   "6057381").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 12:51
S25 5	17	("3579056"   "5111278"   "5128831"   "5324687"   "5434745"   "5455455"   "5563084"   "5841638"   "5857858"   "6117704"   "6222265"   "6225688"   "6281577"   "6287892"   "6560109"   "6563217"   "6583503").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 13:07
S25 6	13	("5136365"   "5173764"   "5366933"   "5376825"   "5399898"   "5477611"   "5753974"   "5773896"   "5776796"   "5915169"   "5990545"   "6054337"   "6057598").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 13:21
S25 7	11	"6714418".pn. or "6545228".pn. or "6803663".pn. or "6956283". pn. or "6172423".pn. or "578387". pn. or "5986334".pn. or "6426549".pn. or "5747874".pn. or "5340771".pn. or "5172302". pn. or "6977440".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 15:55
S25 8	1	"5783870".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 13:31
S25 9	2668	257/777	USPAT	OR	OFF	2006/01/06 14:58
S26 0	98	coefficient with thermal with expansion with "FR-4"	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 16:00
S26 1	8124	coefficient with thermal with expansion with (silicon or silicone or "Si")	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 16:00

## EAST Search History

S26 2	477	coefficient with thermal with expansion with (silicon or silicone or "Si") with ppm	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 16:01
S26 3	25	coefficient with thermal with expansion with (silicon or silicone or "Si") with ppm/C	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 16:04
S26 4	6	coefficient with thermal with expansion with "10" near ppm/C	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 16:11
S26 5	2	coefficient with thermal with expansion with "9" near ppm/C	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 17:11
S26 6	1	coefficient with thermal with expansion with "8" near ppm/C	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 16:12
S26 7	4	coefficient with thermal with expansion with "7" near ppm/C	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 16:14
S26 8	2	coefficient with thermal with expansion with "6" near ppm/C	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 16:15
S26 9	0	coefficient with thermal with expansion with "GaNi" with ppm/C	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 16:18
S27 0	2	coefficient with thermal with expansion with "ceramic" with ppm/C and ceramic with substrate and (silicon or silicone or "Si") with (chip or die)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 16:18
S27 1	7	coefficient with thermal with expansion with polyimide with ppm/C	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 16:56
S27 2	0	coefficient with thermal with expansion with single near crystal near silicon with ppm/C	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 17:11
S27 3	134	coefficient with thermal with expansion with single near crystal near silicon	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 17:12
S27 4	1	coefficient with thermal with expansion with single near crystal near silicon same ceramic	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 17:12
S27 5	134	coefficient with thermal with expansion with single near crystal near silicon	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 17:13
S27 6	2	coefficient with thermal with expansion with single near crystal near silicon with ppm	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 17:14

## EAST Search History

S27 7	243	coefficient with thermal with expansion with ceramic with ppm	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 17:14
S27 8	30	coefficient with thermal with expansion with ceramic with (silicon or silicone or "Si")with ppm	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 17:15
S27 9	1	coefficient with thermal with expansion with ceramic with (silicon or silicone or "Si") with ppm/C	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 17:30
S28 0	1	"20020163786"	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/06 17:30
S28 1	3232	257/686	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/07 13:06
S28 2	5	"6762487"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/07 13:06
S28 3	28	("20020030261"   "20020079568"   "5089880"   "5117282"   "5128831"   "5222014"   "5362679"   "5400904"   "5444296"   "5509200"   "5514907"   "5591941"   "5612570"   "5713744"   "5751063"   "5758413"   "5783461"   "5861666"   "5977640"   "6014316"   "6121676"   "6130823"   "6225688"   "6323546"   "6414391"   "6417027"   "6473308"   "RE36916").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/07 13:57
S28 4	2891	438/108	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/07 14:24

## EAST Search History

S28 5	1257	438/109	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/07 14:34
S28 6	61	flip near (chip or die) with without with underfill	USPAT	OR	OFF	2006/01/07 14:35
S28 7	1	flip near (chip or die) with without with underfill same increas\$3 with heat	USPAT	OR	OFF	2006/01/07 14:35
S28 8	1	flip near (chip or die) with without with underfill same (decreas\$3 or reduc\$3) with heat	USPAT	OR	OFF	2006/01/07 14:36
S28 9	4026	361/760	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/07 16:39
S29 0	8	"5798567".pn. or "6137164".pn. or "6437990".pn. or "6504241". pn. or "6522022".pn. or "20010028114".pn. or "6521984". pn. or "6597062".pn.	US-PGPUB; USPAT	OR	OFF	2006/01/07 16:43
S29 1	7	"5798567".pn. or "6137164".pn. or "6437990".pn. or "6504241". pn. or "6522022".pn. or "6521984".pn. or "6597062".pn.	US-PGPUB; USPAT	OR	OFF	2006/01/07 16:43
S29 2	8	"5798567".pn. or "6137164".pn. or "6437990".pn. or "6504241". pn. or "6522022".pn. or "6521984".pn. or "6597062".pn. or "20010028114".pn.	US-PGPUB; USPAT	OR	OFF	2006/01/07 16:43